

REMARKS

Claims 1-5 are pending in the present application.

It has been noted that the specification has been objected to because of the repetition of identical language in lines 20-23 on page 2 as well as on page 3, lines 1-3. The redundant language has been cancelled from the bottom of page 2. Other corrections to the specification have been made. The corrections are directed to the subject matter that appears in the amended claims. The term for weight percent has been amended to spell-out the abbreviation, "wt%." In addition, the use of the term "g" to mean "grams" is acknowledged, as this is a common abbreviation. In terms of "slipperiness" the appropriate term is "grams force" or "gf".

Amendments have been made, without the addition of any new matter, to the specification as well as to the claims.

The rejection of the claims under 35 USC § 112, second paragraph, is respectfully traversed in view of the amendments offered with this response. In addition, claims 2-5 are amended according to the Examiner's suggestion found in paragraph 4 on page 3 of the Office Action.

The rejection of the claims under 35 USC § 102 is respectfully traversed for the following reasons.

The present invention relates to a heat-shrinkage tube of polyester or copolyester resin for covering a condenser. The polyester or copolyester of the present invention is composed of polyethylenenaphthalate and polyethyleneterephthalate, having an intrinsic viscosity of 0.65 to 1.0 dl/g.

Further, polybutyleneterephthalate or a metal salt of benzoic acid or stearic acid to control crystallization rate may also be used according to the claimed invention.

U. S. Patent No. 5,718,953 to Shikama et al. discloses a heat-shrinkage tube of polyphenylene sulfide and an inorganic particle having an average diameter of 0.01 to 1 μ m. Further, Shikama et al. cites the ability to contain other heat resistant polymers such as, polysulfone, polyolefin, polyphenylene ether, polyether imide, polyether ketone, polyester, fluororesin, polyacrylate to improve mechanical properties such as processability and tear strength.

However, there are no working examples containing other polymers other than polyphenylene sulfide in the examples of Shikama et al., except Example 7, which contains polyphenylene sulfide of 80% and polysulfone of 20%. Therefore, Shikama et al. cannot be supported by the examples and cannot be performed by a person of ordinary skill in this field.

The rejection of claims 3-5 under 35 USC § 103(a) as being unpatentable over Shikama et al., in view of U.S. Patent 4,454,312 to Kuze et al., is respectfully traversed for the following reasons:

Although Shikama et al. discloses the use of a combination of 80% or more of a polyphenylene sulfide and another polymer including possible polyester of some type, there are no working examples showing such a combination and there is no further characterization of the polyester in connection with the production of heat-shrinkable tubing which contains the polyphenylene sulfide either alone or in combination with a minor amount of another polymer. The use of talc or other slip agents listed in column 3 at line 60-65 in Shikama et al. does not amount to a disclosure of the claimed compositions in the present application with specific particle diameters and imparting specific slipperiness in the range of 300 to 800 gf for the heat-shrinkable tube comprising a polyester resin or copolyester resin as principal component and 0.01 to 3 weight percent of the particle having the defined average particle diameter and

slipperiness characteristics as claimed in the present application.

In fact, the combination of Kuze et al. together with Shikama et al. is questionable because Kuze et al. requires the use of zirconium particles to promote slipperiness and does not suggest or even hint at the use of any other type of particle such as those particles employed in the present application, namely, talc or silica, which are known as "external particles". The Kuze et al. particles are not external particles, but rather are internal particles which form compounds with the polycondensation of terephthalic acid. The Kuze et al. polyester films are just not the same chemically. Additionally, Kuze et al. discloses a biaxially stretched polyester film of polyester resin containing polyalkylene terephthalate content more than 80 mol % and zirconium to improve slipperiness for package, photographic and magnetic tape. Therefore, the invention of Kuze et al. is different from the present invention.

In Kuze et al., no other polyester resin, other than polyethylene terephthalate, is used as polyester. The zirconium particles and additives are also necessary in order to add the time, polyester manufacturing step, after ester exchange reaction initiation, and VI value less than 0.2.

However, polyester resin or copolyester resin of the present invention contains polyethylenenaphthalate of 1 to 15 mol% and may additionally include the external particles such as silica or talc at any time of polymerization step, compounding step or tube manufacture.

Thus, it is clear that the present invention differs essentially from both of the inventions according to Shikama and Kuze et al. references, whether taken alone or in combination thereof.

The purpose of the present invention differs markedly from the Kuze et al. reference and the technical field is also markedly different.

Therefore, in view of the foregoing amendments and arguments, the Examiner is respectfully urged to reconsider the rejection of the claims and favorable action and allowance of

the present application is earnestly solicited.

Conclusion

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Mr. Edward H. Valance (Reg. No. 19,896) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant(s) respectfully petition(s) for a one (1) month extension of time for filing a reply in connection with the present application, and the required fee of \$110.00 is attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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